teins or peptides, wherein the admixture is coated with, deposited on or in, entrapped in, suspended in, embedded in and/or otherwise combined with the biomaterial.

61. The method of claim **34** wherein the admixture is derived from mammalian kidney tissue or cultured mammalian kidney cells.

62. The method of claim **34** wherein the admixture is derived from an autologous kidney sample.

63. The method of claim **46** wherein the sample is a kidney biopsy.

64. The method of claim **53** wherein the admixture is derived from a non-autologous kidney sample.

65. A selected population of renal cells, isolatable by centrifugation through a density gradient, after having been exposed to about 1% to about 5% oxygen levels for about 12 to about 24 hours, with the gradient including a portion with density from about 1.045 g/mL to about 1.052 g/mL, wherein the cell population (i) is retained in the gradient after centrifugation at a density between 1.045 g/mL to about 1.052 g/mL, (ii) comprises a renal tubular cell population characterized by expression of at least one tubular cell marker, (iii) comprises a subpopulation of renal tubular cells capable of receptor-mediated albumin transport, (iv) is capable of modulating one or more renal functions when delivered to a subject at risk of or having a renal disease.

66. A selected population of renal cells, isolatable by centrifugation through a density gradient, after having been exposed to about 1% to about 5% oxygen levels for about 12 hours to about 24 hours, with the gradient including a portion with density from about 1.063 g/mL to about 1.091 g/mL, wherein the cell population (i) is retained in the gradient after centrifugation, at a density between 1.063 g/mL to about 1.091 g/mL, (ii) comprises oxygen-tunable erythropoietin (EPO)-expressing cells, glomerular cells, and vascular cells, (iii) is capable of modulating one or more renal functions when delivered to a subject at risk of or having a renal disease, and (iv) is capable of enhancing the modulation of one or more renal functions by the population of renal cells of claim **65** upon co-administration.

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